Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method of edge enhancement, comprising the acts of:

extracting a first high frequency portion in a first direction of data representative of relative light intensity of a reference pixel;

extracting a second high frequency portion in a second direction of data representative of relative light intensity of the reference pixel, the first direction being perpendicular to the second direction;

outputting selected data from the first high frequency portion and the second high frequency portion;

determining a correction coefficient based upon a sign and a value of the extracted high ~~frequency portion of~~ reference pixel in the data, the sign being indicative of a relation between the relative light intensity of the reference pixel and that of pixels surrounding the reference pixel; and

correcting the selected data based upon the correction coefficient.

2. (currently amended) The method of edge enhancement according to claim 1 wherein said sign is positive when a value of the data representative of the relative intensity of the reference pixel is larger than that of surrounding pixels.

3. (currently amended) The method of edge enhancement according to claim 1 wherein said sign is negative when a value of the data representative of the relative intensity of the reference pixel is smaller than that of surrounding pixels.

4. (currently amended) The method of edge enhancement according to claim 1 wherein the data representative of the relative light intensity of the reference pixel is obtained from an input signal representative of color green (G) in RGB input signals.

5. (original) The method of edge enhancement according to claim 1 wherein a predetermined set of values is stored in a lookup table for selecting the correction coefficient value.

6. (currently amended) A system for edge enhancement, comprising:

an extraction unit for extracting a first high frequency portion in a first direction and a second high frequency portion in a second direction of data representative of relative light intensity of a reference pixel, the first direction being perpendicular to the second direction;

a mixing unit connected to said extraction unit for outputting selected data from the first frequency portion and the second high frequency portion;

a determination unit connected to said ~~extraction~~ mixing unit for determining a correction coefficient based upon a sign and a value of the ~~extracted high frequency portion~~reference pixel in of the data, the sign being indicative of a relation between the relative light intensity of the reference pixel and that of pixels surrounding the reference pixel; and

a correction unit connected to said determination unit and said extraction unit for correcting the selected data based upon the correction coefficient.

7. (currently amended) The system for edge enhancement according to claim 6 wherein said sign is positive when a value of the data representative of the relative intensity of the reference pixel is larger than that of surrounding pixels.

8. (currently amended) The system for edge enhancement according to claim 6 wherein said sign is negative when a value of the data representative of the relative intensity of the reference pixel is smaller than that of surrounding pixels.

9. (currently amended) The system for edge enhancement according to claim 6 wherein the data representative of the relative light intensity of the reference pixel is obtained from an input signal representative of color green (G) in RGB input signals.

10. (original) The system for edge enhancement according to claim 6 wherein said determination unit further comprises a look up table storing a predetermined set of values for selecting the correction coefficient value.

11. (new) The method of edge enhancement according to claim 1 wherein the first direction and the second direction are respectively horizontal and vertical.

12. (new) The method for edge enhancement according to claim 6 where the first direction and the second direction are respectively horizontal and vertical.

13. (new) The method of edge enhancement according to claim 1 wherein the selected data is the larger of the first high frequency portion and the second high frequency portion when the first high frequency portion is substantially different from the second high frequency portion in absolute value.

14. (new) The system for edge enhancement according to claim 6 wherein the selected data is the larger of the first high frequency portion and the second high frequency portion when the first high frequency portion is substantially different from the second high frequency portion in absolute value.

15. (new) The method of edge enhancement according to claim 1 wherein the selected data is an average of the first high frequency portion and the second high frequency portion when the first high frequency portion and the second high frequency portion are substantially similar in absolute value.

16. (new) The system for edge enhancement according to claim 6 wherein the selected data is an average of the first high frequency portion and the second high frequency portion when the first high frequency portion and the second high frequency portion are substantially similar in absolute value.

17. (new) A method of edge enhancement, comprising the acts of:

extracting a high frequency portion of data representative of relative light intensity of a reference pixel;

limiting the data based upon a predetermined range to generate limited data;

determining a correction coefficient based upon a sign and a value of the reference pixel in the data, the sign being indicative of a relation between the relative light intensity of the reference pixel and that of pixels surrounding the reference pixel; and

correcting the limited data based upon the correction coefficient.

18. (new) The method of edge enhancement according to claim 17 wherein said sign is positive when a value of the data representative of the relative intensity of the reference pixel is larger than that of surrounding pixels.

19. (new) The method of edge enhancement according to claim 17 wherein said sign is negative when a value of the data representative of the relative intensity of the reference pixel is smaller than that of surrounding pixels.

20. (new) The method of edge enhancement according to claim 17 wherein the data representative of the relative light intensity of the reference pixel is obtained from an input signal representative of color green (G) in RGB input signals.

21. (new) A system for edge enhancement, comprising:

an extraction unit for extracting a high frequency portion of data representative of relative light intensity of a reference pixel;

a limiting unit connected to said extraction unit for limiting data based upon a predetermined range and for generating limited data;

a determination unit connected to said limiting unit for determining a correction coefficient based upon a sign and a value of the reference pixel in of the data, the sign being indicative of a relation between the relative light intensity of the reference pixel and that of pixels surrounding the reference pixel; and

a correction unit connected to said determination unit and said limiting unit for correcting the limited data based upon the correction coefficient.

22. (new) The system for edge enhancement according to claim 21 wherein said sign is positive when a value of the data representative of the relative intensity of the reference pixel is larger than that of surrounding pixels.

23. (new) The system for edge enhancement according to claim 22 wherein said sign is negative when a value of the data representative of the relative intensity of the reference pixel is smaller than that of surrounding pixels.

24. (new) The system for edge enhancement according to claim 22 wherein the data representative of the relative light intensity of the reference pixel is obtained from an input signal representative of color green (G) in RGB input signals.